Submarine Safety Symposium

9 - 10 October 2013 - Dock Museum, Barrow-in-Furness



Sponsored by

BAE SYSTEMS



Submarine Safety Symposium

9 - 10 October 2013 - Dock Museum, Barrow-in-Furness





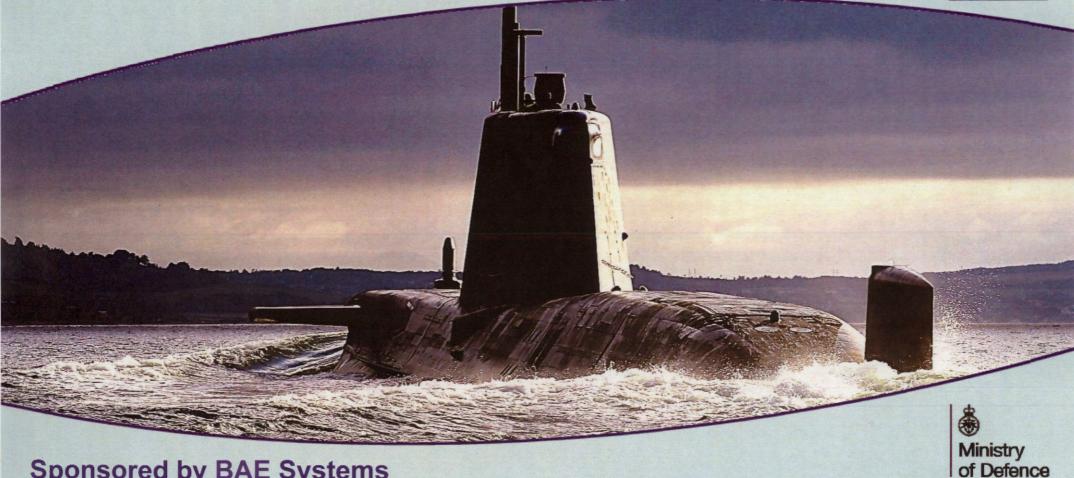
Sponsored by BAE Systems

09-10 October 2013/ BC605813 / UNCLASSIFIED



9 - 10 October 2013 - Dock Museum, Barrow-in-Furness





Sponsored by BAE Systems

09-10 October 2013/ BC605813 / UNCLASSIFIED 3

Submarine Safety Symposium

9 -10 October 2013 - Dock Museum, Barrow-in-Furness









BAE SYSTEMS







Sponsored by BAE Systems



Submarine Safety Symposium

9 - 10 October 2013 - Dock Museum, Barrow-in-Furness



SUBMARINES



Sponsored by BAE Systems

09-10 October 2013/ BC605813 / UNCLASSIFIED



9 - 10 October 2013 - Dock Museum, Barrow-in-Furness



SUBMARINES



Sponsored by BAE Systems

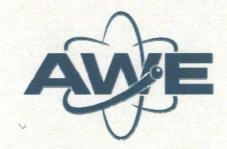
09-10 October 2013/ BC605813 / UNCLASSIFIED 6

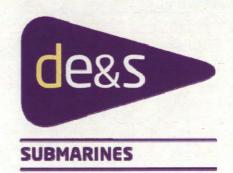
Submarine Safety Symposium

9 - 10 October 2013 - Dock Museum, Barrow-in-Furness









BAE SYSTEMS







Sponsored by BAE Systems



People & Skills

Resourcing a Nuclear Construction Project



NNB HR Director



Key Themes

- The Industrial Challenge
- Delivery Hinkley Point C
- The People Challenge



1. The Industrial Challenge



An Industrial Transformation

From this...



...to this





What is Hinkley Point C?

Project Team

c150 contracts

£ Billions

Complex

Interfaces (Huge)

EDF Group

60 year asset

Engineering & Operations

Safety case

4,524 MWth

1630 MWe to grid

UK PLC

Diversity and security of supply

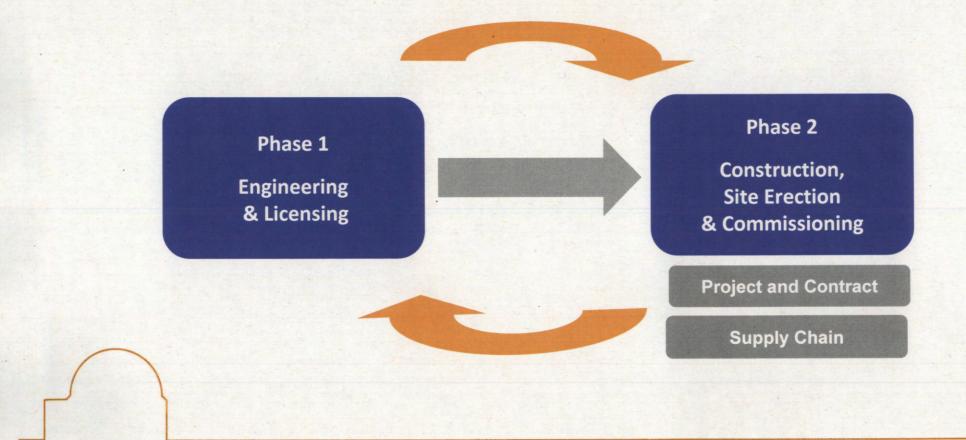
The Most Ambitious Industrial Project for 20 Years



2. Delivering Hinkley Point C



Delivering Hinkley Point C





Lessons Learnt From OL3, FA3, Taishan and SZB

- Don't start until you're ready
- Have a robust and achievable programme schedule
- Early engagement with key contractors









96 Major Contracts

Infrastructure

58 buildings 1,300,000 m3 concrete 210,000 Rebar 11km of tunnels 2 shafts

Complexity

Key Challenge

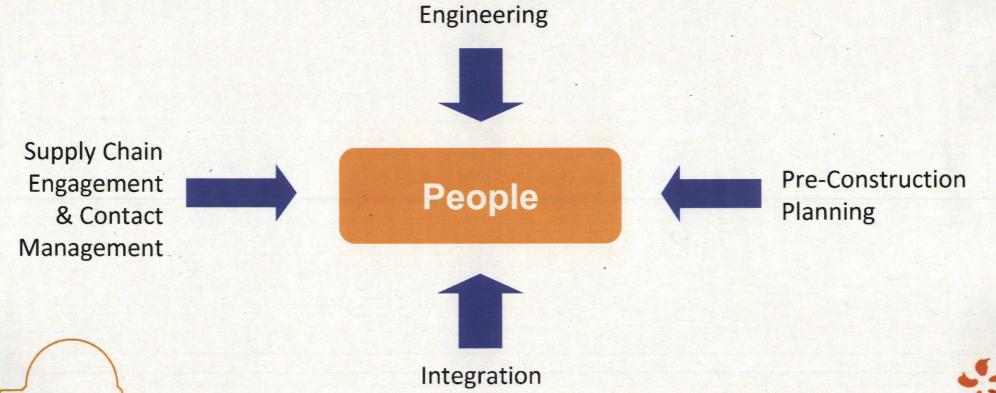
Integration

Components

210km of Pipework 20,000 Valves 2,000 Pumps 42 Heat Exchangers 86 Filters 120 Tanks 24,000km of cables 26,000 Cable Types 140 Switch Boards 12 Diesel Generators 10,000 I&C Sensors



Delivering HPC: The 4 + 1 Rule

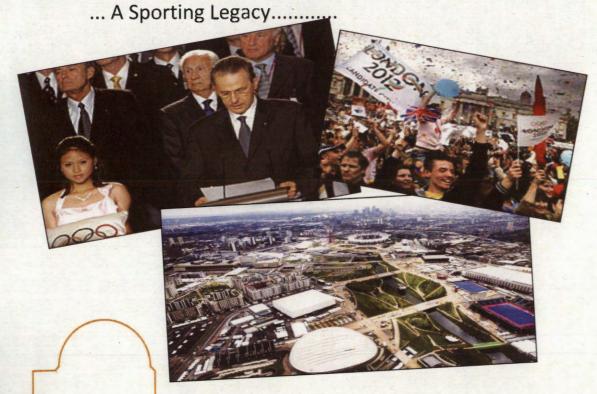


3. The Opportunity - UK plc



Nuclear New Build '....UK's Industrial Olympics......'

London 2012 Olympic Games



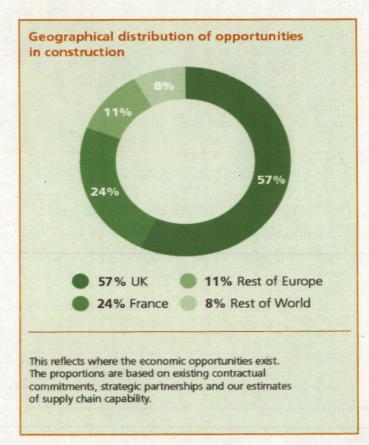
Hinkley Point C
..... An Industrial Legacy....
(Engineering, Construction & Manufacturing)





Bringing long-term rewards for Britain

- Strengthening the UK economy through billions of pounds of investment
- Reaching across the Channel
- Creating high-value manufacturing employment
- Reinvigorating the engineering, construction and manufacturing industries
- Inspiring the next generation and improving the UK skills base





3. The People Challenge



The current skills landscape and call to action...

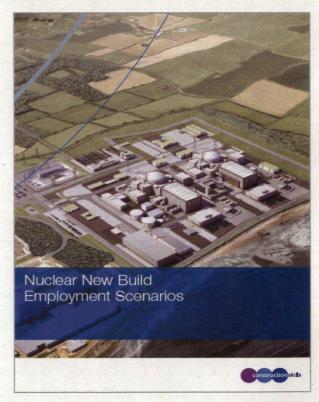
- UK Sector Skills Councils predict Infrastructure and Civil Engineering will increase by up to 250% up to 2020
- Other sectors (commercial/House building) will remain in recession for most of this time
- Prospect of severe skills shortage in key civil engineering occupations and Major UK Engineering Projects (Crail, UKNNB, HS2 etc.)
- Lack of major project experience for the majority of the construction workforce requiring new behaviours and supervisory skills.
- Lack of STEM uptake in schools to create future pipelines
- Major opportunity for Skills conversion, up skilling, re-skilling and new entrants into construction and engineering
- · Lack of funding and skills provision for up skilling, re-skilling and conversions is a real issue
- Requires coordinated support and partnership working with skills bodies trade unions and partners



The EDF Energy Hinkley Point C Story

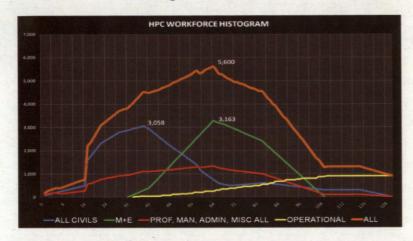
Subject to the right investment framework we will be:

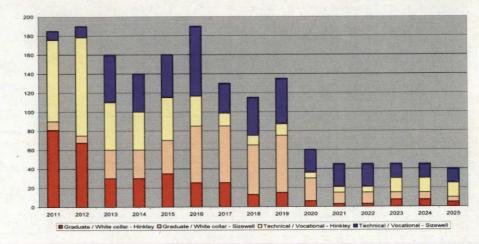
- Analysing HPC resource and labour requirements at the project level with Contract Partners
- Working with skills partners to determine implications for output and employment at regional and national levels
- Identifying pinch points at project level
- Sharing evidence with skills bodies and Government at the national level
- Planning for specific and focussed investments in Skills and Employment
- Developing business cases with partners
- Informing the contractor mobilisation processes





The Hinkley Point C Opportunity





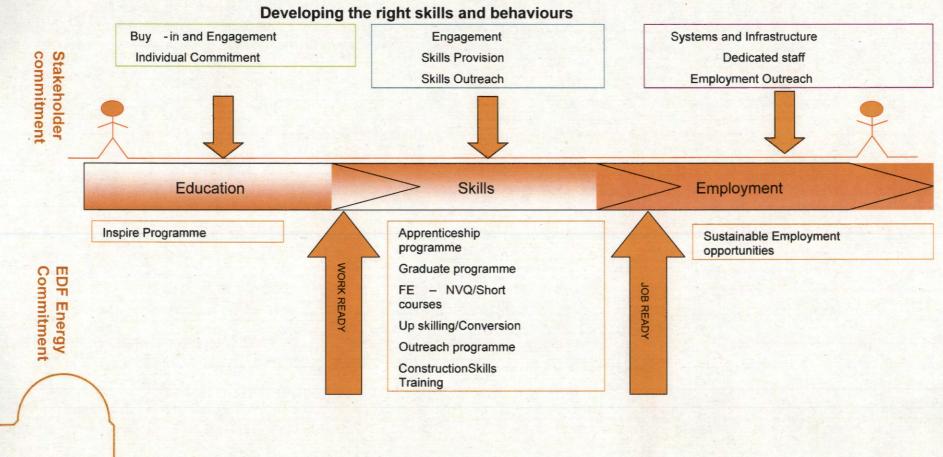
- C. 5600 Construction workers at peak
- C. 2000 people expected to work on site between 2012 and 2018

Local opportunities At least 5000 people from Somerset expected to work directly on the project

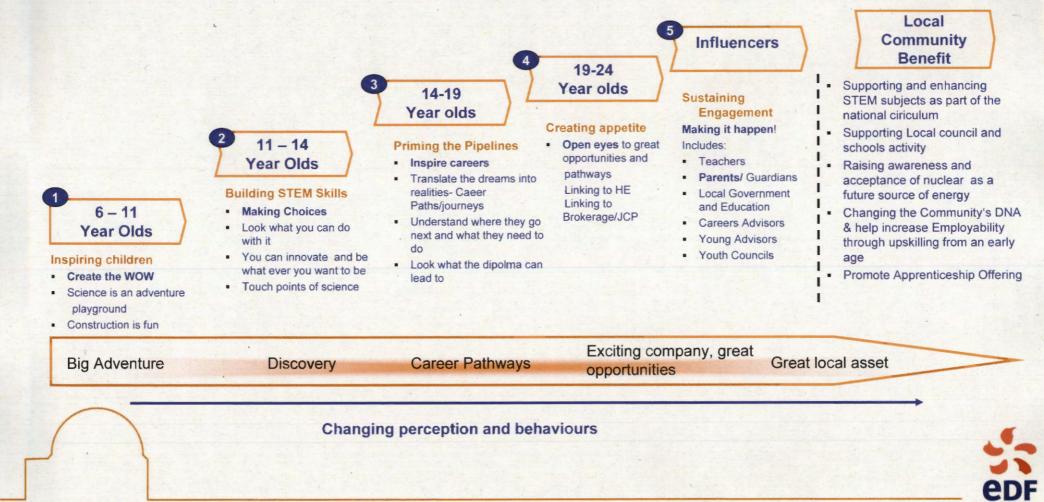
- C.900 Workforce including:
- C. 300 technicians
 - C. 150 engineers Specialists, support staff, facilities staff



An integrated strategy to meet the challenge



Education: Who we are Engaging with



Hinkley Point Discovery (Primary) Leaf and Seed Collecting

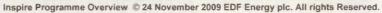




Cheltenham Science Festival Outreach

The Somerset Christmas Lecture







Construction Skills Centres

- Based at local colleges
- Already open in Bridgwater and delivering training
- Channelling and optimising Government, Grant and Contractors' own funding to deliver training and skills
- Partnership arrangements in place with colleges ensure high quality training delivered at the right time
- New 8 acre Civil Engineering Site Opening
- West Somerset CC Skills Centre
- All training delivered at skills centres is flexible and will change over time to meet supply chain needs





Hinkley Enterprise Centre

Based at local colleges.

Supporting local businesses and training local people – supplying products and services to the workforce.

Delivered by local providers, trainees and staff

- equipping trainees with skills and knowledge in high demand areas;
- providing a high quality training programmes
- ·Linking with local firms and businesses and training new entrants
- providing qualifications in specialist areas
- ·fostering, harnessing and enhancing entrepreneurial skills
- providing opportunity to study to higher levels
- developing business start-up or internship opportunities

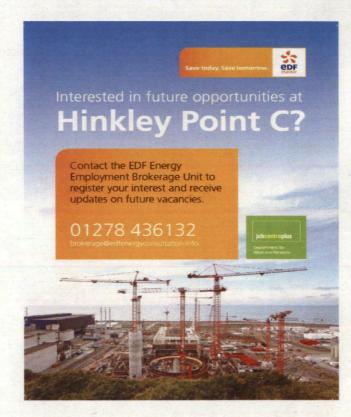
Areas of the supply chain involved in Hinkley Enterprise:

Hospitality, Catering and Event Management, Outdoor Activity, Business Admin, Finance, Customer service, Retail and e-commerce



The HPC Employment Brokerage

- Open for Business
- One-stop shop for Somerset people looking for jobs
- · Where the supply chain advertises the jobs they have
- Also used to fill 'downstream jobs', 'displacement jobs' and for local firms 'gearing up'
- Providing information and support for supply chain firms and job seekers
- Providing employment outreach specifically targeted to support people into work
- Links directly to skills centres to deliver short courses and demand led training specifically for HPC jobs
- Providing essential Pre-training to create talent pool
- Employing and recruiting local apprentices



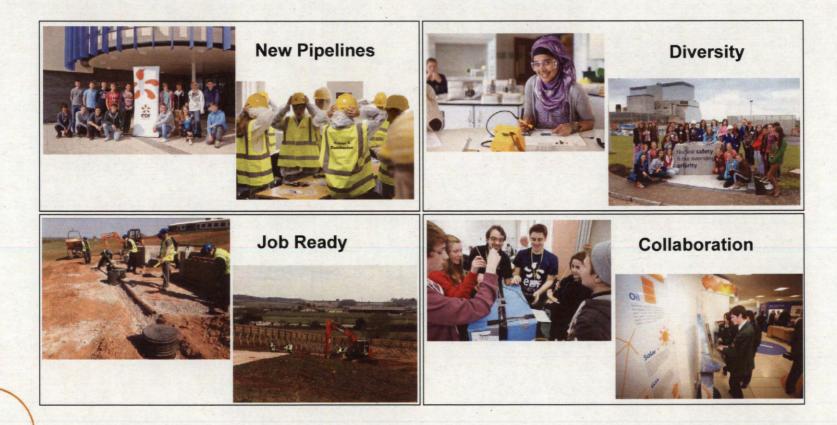


Skills and Employment

- Local employment levels exceeding S106 aspirations
 - 50% of site workforce from Somerset
- 100% of all Brokerage jobs to date created for Somerset people
- Over 2000 Somerset people registered with the Brokerage
- Over 2200 training places have been provided at construction skills centres in Bridgwater
- Currently working with non HPC supply chain companies to widen the work of the Brokerage and Skills Centres
- Supporting co-ordination of local labour demand within Local Authority groups
- Skills and employment opportunity embedded in new IR Framework for Hinkley Point C



The impact - building a legacy of skills





Conclusion

Subject to the right investment framework:

- Balance between development of a nuclear workforce and construction skills
- Need to develop demand based education and skills pipelines for both sort term construction and long term nuclear needs
- Links between education (schools and FE) and employment need vision and courage
- Major clients and employers have to lead and collaborate with Supply Chain, skills bodies and education providers to create a legacy of UK jobs and skills



Powering the UK's future begins today ...



thank you



Submarine Safety Symposium

9 - 10 October 2013 - Dock Museum, Barrow-in-Furness



Sponsored by

BAE SYSTEMS

